

## TEACHERS' RETIREMENT BOARD

### REGULAR MEETING

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SUBJECT: State Teachers' Automation  
Redesign Team (START)  
Project Update

ITEM NUMBER: 6

ATTACHMENT(S) 2

ACTION:       

DATE OF MEETING: July 13, 2000

INFORMATION: X

PRESENTER(S): Ken Costa

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This report covers the period of May 2000 and June 2000 for the START Project. Work continues on the finalization of specifications, development of software, testing of software and conversion of data and implementation tasks.

#### Testing Team

Subsystem Testing is 91% complete and Integration Testing is 85% complete, resulting in a total of 88% complete for overall testing of the START Project. The actual task of executing the test scripts is 81% complete.

The Test Team's START Assessment was delivered on May 25, 2000. This assessment showed that the START system tested to date substantially conforms to specifications.

The plan for testing with converted data has been developed, and the testing itself has commenced. This testing consists of three separate approaches; side by side comparisons between START and IDMS, automated testing using SPL's load modules, and execution of subsystem and integration testing scripts. The effort is scheduled to be completed by August 15, 2000 and is dependent on the completion of the first trial run (pre).

#### Conversion Team

The first trial run (referred to as the pre) remains on schedule with approximately 65% of the data converted. The timely conversion of benefit stream data remains critical to the success of both the Conversion Project and the overall START project. Currently, the benefit stream program modifications are on schedule, however the quality and consistency of the IDMS data remain unknown until testing of the conversion programs is complete and all data has been run through the process. The business and Information Technology Services Division areas continue to be highly cooperative in resolving data issues as they are identified during the running of this trial run. The project schedule remains aggressive for the completion of the pre trial run in the event large quantities of data clean up are identified.

### Implementation Team

The Training Team has been working with CalSTRS management on the training hours. Staff training estimates are being refined based on management feedback and training pilot results. New training milestones have been developed and reviewed by START project management. The new deadline for all the training lessons and checksheets to be developed will be September 30, 2000. Lesson development continues to be impacted by training resources redirected to higher priority project areas. To help reduce the impact of the resource redirection, a contractor has been hired to work with the Training Team.

The User Acceptance Team is concluding the initial impact analysis of identified changes that have been delayed until after START implementation. Results of the initial analysis will be available to CalSTRS management next month. User Acceptance activities beginning in July will be the review of security profiles.

The START Model Office Team is progressing with the testing of all the necessary components for START production environment. The team is working closely with the Testing Team on START production setup. A new team lead for Model Office has been selected and will begin on July 3, 2000.

The Event Schedule is still in the process of being developed. The schedule will identify all activities needed to shutdown IDMS, convert IDMS data and implement START. To date, we have identified over 450 tasks. Downtime activities developed by the Downtime Team are being reviewed and documented into the Event Schedule. Downtime backlog assumptions are currently being developed and will be shared with CalSTRS management. In addition, the team is working with the Database Administration lead to identify all of the database and Teale Data Center activities that need to be incorporated into the schedule. A presentation by the Downtime Team will be given at the September Board meeting.

### Issues

- The completion of the Critical Milestones within the specified timeframes is at issue due to the scope of the work and the key resources available. The implementation of START will be after the completion of the Annual Update and generation of Members Annual Statement of Account. The “Go Live” date for START is in November/December 2000 timeframe.
- Potential cost increases due to the conversion of data at the Teale Data Center or unidentified system changes that may result from conversion or testing.

START Project Update – TRB Item 6

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Please see the attached monthly status report from the Oversight Consultant, Science Applications International Corporation (SAIC) (Attachment A) and SPL WorldGroup (Attachment B). SAIC has provided metrics of measurable project factors, such as change requests, issues resolution and incident tracking.



Mr. Jim Mosman  
CEO, CALSTRS  
7667 Folsom Blvd  
PO Box 15275  
Sacramento, CA 95851-0275

June 21, 2000

Dear Mr. Mosman:

The following represents SAIC's monthly START Oversight status report for May 19, 2000 through June 20, 2000. Included in the report is a summary of activities for the period, a discussion of the status of the project, an updated summary of risks and mitigation activities associated with the project and project metrics for START. Progress is being carefully tracked and milestones toward meeting implementation for the December 1, 2000 allowance roll is currently being met. While testing and conversion remain major risk areas, the efforts have met their current milestones.

A Test Readiness Report has been delivered that identifies key areas of project risk in the areas of Letter Generation and Report Interaction. A new software release to resolve many of the significant issues is scheduled for release at the end of June. A milestone for completing a first pass of system integration and subsystem testing is due at the end of June.

Cal-STRS staff continues planning for implementation, with progress being made in planning for workarounds, training, maintenance strategy and implementation/production.

An effective process to control the change requests for the system is in place. Some change requests have been identified that require program/design change, although an extensive effort is made to find workarounds in lieu of program changes, particularly in the areas where data changes could significantly impact the conversion effort. Pending legislative issues are being carefully monitored by staff to determine when best to implement the changes without impacting the go-live date.

Sincerely,

SCIENCE APPLICATIONS INTERNATIONAL CORPORATION

Laura J. Metzger  
Vice-President  
Manager, START Oversight Project

# **START OVERSIGHT REPORT**

June, 2000



Science Applications International Corporation  
Systems Integration and Support Division  
10260 Campus Point Drive  
San Diego, CA 92121

## **START OVERSIGHT STATUS**

### **Summary of Oversight Activities:**

SAIC has performed the following oversight activities for the CalSTRS START project in the December through January time frame:

- Attended various project status meetings
- Prepared CalSTRS board materials
- Compiled project metric data
- Reviewed status of development, conversion and testing efforts
- Developed draft statement of work for maintenance support following implementation

### **Key START Oversight Issues**

SAIC has identified the following key issues for START and is actively tracking the status of each issue area. A description of each issue is provided on the following pages and is updated on a monthly basis.

- Status of CIR development efforts and incident fixes;
- Status of the conversion effort relative to the plan;
- Status of testing effort relative to plan
- Management of implementation effort relative to plan

## STATUS OF CIR DEVELOPMENT EFFORTS AND INCIDENT FIXES

SPL has provided a schedule for delivery of CIR software, which shows Cal-STRS receiving all software in June, 2000. Resource issues associated with prioritization of conversion, incident fixes and CIR development work that SPL is addressing remain.

The resolution of Critical and High incidents is ~~on slightly behind~~ plan; Medium incident resolution is ~~falling behind plan, but not to a level of serious concern below plan~~. While testing has been active, the discovery rate of incidents is falling off, which is consistent with the stage of the project we are currently in. Metrics, including incident closure, will be carefully monitored to ensure that as testing progresses this trend in incident fixes continues. With the completion of the SPL allowable exception programs for conversion, additional resources will be available to close open incidents.

A process has been put together where the test team prioritizes the critical/high incidents to ensure that the ones that are most impacting test progress can be dealt with on a higher priority. There are some discrepancies, as expected, between CalSTRS and SPL on incidents that are in and out of scope (i.e., those that require a CIR because they are new requirements and those that are not implemented per the specification). This is a particularly important issue where there are ambiguities in the specification. SPL and CalSTRS have implemented a review and escalation process to ensure that issues are quickly brought to closure and decided upon at the appropriate management levels. SPL has also offered to have a person at Cal-STRS who can help resolve mis-reported incidents.

Project metrics are being tracked and are provided at the end of this report.

## STATUS OF THE CONVERSION EFFORT

The conversion team has completed a detailed conversion work plan, which has been reviewed by the START. The plan has been updated to reflect new schedules for delivery of allowable exception processing. The Conversion Team is dependent upon timely delivery of the software changes for Allowable Exceptions from SPL to meet their schedule for conducting a Trial Run. Metrics associated with conversion progress are included in this report. While milestones have been met to-date, significant milestones exist in July that will require substantial effort to complete. The next major milestone is to complete a pre-trial run, which is scheduled for July 28, 2000.

CalSTRS has placed the data design under formal configuration control to ensure that the conversion team is aware of any data format changes that are made and to assess to the impact of these changes on the conversion effort. The Conversion team must have insight into the potential data changes that each outstanding CIR has on conversion.

Conversion is ~~progressing to~~working at Level ~~73~~ of the Conversion hierarchy, which involves conversion of benefit stream data. Data problems are being encountered and resolution of the problems are being addressed by CalSTRS staff. Data problems are also being encountered in testing that impact the ability of some testers to move forward. The testing data issues will be resolved when actual converted data is able to be deployed. SPL and CalSTRS must continue to work closely to resolve issues in an expeditious manner.



## STATUS OF TESTING EFFORT

A detailed tactical plan has been developed. The test team has rebaselined their schedule to reflect the new timeframe and, therefore, is much more on track than previously. Key subsystems that require attention have been identified and corrective action is being taken to get the effort on schedule. Regression testing progress must also be carefully monitored – new metrics are being developed that provide more insight into progress in this important area. Progress in this area must be carefully monitored, as failure to complete testing according to plan could result in a delay of implementation. A major milestone to complete the first pass of test execution for both subsystem and integration testing at the end of June appears to be on target.

Workflows, which form the basis of the system level testing effort, have been completed and are being approved by the CalSTRS operational units. It is imperative to ensure consistency between the workflows and the specifications, and to identify any discrepancies so they can be resolved as early as possible.

Metric data associated with testing is provided in the metric portion of this report. The need to create and manage test data remains a major risk area. Strategies for test data management have been developed and are in the process of being implemented. Failure to provide a strong test data environment will impact the ability of the organization to successfully complete the testing process.

A test readiness report has been completed and has been reviewed by staff. Key risk areas identified in the report include Letter Generation and Reporting Interaction. A plan for testing with converted data has also been developed and is being reviewed.

## MANAGEMENT OF IMPLEMENTATION EFFORTS

Considerable progress has been achieved in the development of an implementation strategy. Tasks have been identified with associated responsibilities documented. Points of contact for each CALSTRS organization are being assigned responsibility for the acceptance activities. The individual teams will then produce resource needs as well as timelines. CALSTRS will then have an opportunity to ensure that they can meet staffing requirements and make plans to add staff, if necessary.

The joint START workplan for implementation is being developed. Staff has been assigned to further refine the implementation plan and support development of this overall START project and implementation plan.

A draft Maintenance Strategy has been developed and work is continuing on the development of the Maintenance Plan. SPL should be involved in reviewing this strategy. A detailed staffing plan has been developed and is being reviewed by Cal-STRS management. The Maintenance Strategy has developed an approach that includes process improvements in the general delivery of IT services as well as in the technology changes that are required for the new START system software maintenance. This strategy has incorporated many of the quality assurance and process improvements that have been developed as part of the START development effort.

A team has been assembled to determine the Downtime Plan. A draft document has been produced and has been reviewed by management. The plan has been enhanced to include “inch-stone” management of events during a 90-day period surrounding the implementation period.

The START Training program is being developed. Resource issues ~~must~~ are being addressed to ensure that the training team has access to key staff (i.e., system experts) to complete training materials. Metrics related to training progress will be included in future board reports.

~~CALSTRS is working with SPL to determine how best to incorporate the “train the trainer” training SPL is providing. Training materials are being developed. This effort is behind schedule, due to illness of a member of the team, but it is anticipated that they will be back on schedule in early 2000.~~

~~Efforts are underway to determine how maintenance activities will be performed following implementation. Coordination between ITSD and the START team is required to ensure a smooth deployment of the system.~~

~~Efforts are also underway to define a contract scope of work and vehicle for maintenance support following implementation.~~

## PROJECT RISK SUMMARY

The following table describes the overall risks associated with the START project. Risks are always present and unavoidable in any software development project. Risk management is an important part of the project management process, as it helps the project manager foresee potential problems before they occur. Mitigation strategies can be put in place to deal with risks before they become problems.

The following risk summary table identifies key START risks, defines the impact of the risk if it were to become a problem, assigns a probability of the risk occurring, describes the risk and identifies mitigation strategies or recommended actions that could help avoid the realization of the risk. Risk impact levels are defined as follows:

- High: If not addressed, there could be severe impact to the project success due to unacceptable schedule slip, cost impact or quality of product
- Medium: If not addressed, there could be significant impact to the project success due to unacceptable schedule slip, cost impact or quality of product
- Low: If not addressed, there could be some impact to the project success due to unacceptable schedule slip, cost impact or quality of product

Probability of risk is defined as follows:

- High: Mitigation measures do not seem sufficient to overcome the risk or the risk is already being dealt with as an issue on the project
- Medium: Mitigation measures are being followed and appear to be successful, but the risk threatens to become an issue
- Low: Mitigation measures are in place and the risk appears to be well controlled at this point in the project.

Changes to the risk summary table that have been made since the last delivery of this report are denoted with standard editing marks. This should facilitate review of the material.

Some risks have been removed from the table, as they no longer represent risks to the project. These items are marked as deleted in this version. They not be included in subsequent risk tables.

Risk	Impact	Prob Occur	Description of Risk	Mitigation Strategies/ Recommended Activities	Status of Mitigation Activities
Project completion not on schedule.	High	High	<p>The date for complete software delivery, including outstanding CIRs is planned for March, 2000. Issue resolution and associated re-design has impacted the ability to deliver software on-time.</p> <p>Changes resulting from major legislation over the next 18 months could impact the ability to complete the project on schedule.</p> <p>Conversion and testing efforts could cause delay in final implementation.</p>	<p>The implemenation date has been moved to December, 2000 based on the currently planned delivery dates. A consolidated CALSTRS conversion, testing, and implementation schedule has been developed to ensure that adequate staff resource exist to meet planned implementation date.</p> <p>Implement formal program management reviews to ensure the schedule accurately reflects the development effort.</p> <p>The current system can continue to operate until START is ready for implementation. The old system will be a fallback method.</p>	<p>The START teams have revised plans to reflect the new implementation schedule And bi-weekly meetings are being held to track progress to meeting the milestone plans.</p> <p>A team comprised of the SPL project manager, the test manager, the conversion manager, and the oversight manager meet each month before the planned START management meeting to review project status and discuss impact of any schedule changes.</p> <p>All major issues have been discussed and resolution has been reflected in the new specification releases. Conversion and testing progress must be tracked carefully to ensure schedules are maintained ..</p>

Risk	Impact	Prob Occur	Description of Risk	Mitigation Strategies/ Recommended Activities	Status of Mitigation Activities
Project completion not on budget.	Med	High	Since the project is taking considerably longer than anticipated there are budgetary concerns to be addressed. Recently approved project budget addressed known concerns.	<p>Since this is a fixed price contract, control of system changes can be used to control project costs.</p> <p>Costs for testing and conversion (CALSTRS activities) may be greater than anticipated and require more resources.</p>	<p>The improved change management process will provide CALSTRS with an improved means for tracking cost impacts due to changes. Some enhancements to the process may be required and are being considered as part of a continual process improvement effort.</p> <p>Detailed project plans are being developed and reviewed by the START project office to determine impact. CalSTRS is finding that programmers are being released from Y2k Project and they are able to get personnel at lower than expected cost.</p>
Staffing will be available to support implementation and operation and maintenance of the system.	Med	Med		<p>CALSTRS has had difficulty staffing for conversion, and may be requiring additional staff for testing and implementation. CALSTRS must identify staffing requirements early to allow for hiring of staff or consultants to support effort.</p> <p>The system experts are in the critical path for issue resolution, conversion, testing and implementation.</p>	<p>Conversion staffing has been successfully completed. Contract allows CALSTRS to use T&amp;M contracting for support services. This could be applied for operation and maintenance. CalSTRS hiring additional test resources. <a href="#">Staffing requirements for system maintenance have been defined.</a></p> <p>The START project office has hired a person to coordinate system expert schedules and consolidated reporting of the experts to START. CALSTRS management will need to be responsive to needs of the system experts to ensure project schedules can be met.</p>
CALSTRS work flows are significantly impacted by the	Med	Low	Any new IT system requires that work flows be examined to ensure the system can operate in the	The START system has been designed to minimize the impact on day to day work flow.	A task for defining work flows to determine a critical path for the system completed and workflows <del>are being</del> <a href="#">have been</a> reviewed for approval by staff. While some work flow

Risk	Impact	Prob Occur	Description of Risk	Mitigation Strategies/ Recommended Activities	Status of Mitigation Activities
new system, causing problems in acceptance and post-implementation.			current work flow, or that work flows are changed to reflect capabilities of the new system.	<p>The testing effort should verify that all work flows can be completed and that the necessary controls are in place to effectively operate the system. The workflow development and planned system acceptance strategy also addresses this issue in the next months.</p> <p>Audit procedures must be reviewed to ensure compliant operation of the system and of conversion.</p> <p>Training should address possible changes in workflow processing, where applicable.</p>	<p>issues have been identified in this effort, no major problems have been identified. Analysis of overall workflow and system performance impact is being considered.</p> <p>System experts have been made aware of the need to include these considerations in their test procedures. System experts are currently working with the test team to develop process flows that will be used for generation of system test scripts. As these flows are developed, CALSTRS should be able to identify problems and seek resolution. A review of workflow to requirements in the specification should be conducted to ensure there the workflows accurately reflect the specifications.</p> <p>An EDP Auditor has been hired to support the CALSTRS Audit organization in definition/verification of audit processes. Initial strategies for audit of the conversion process are being developed through reconciliation processes.</p> <p>Address necessary workarounds and stress system differences in the training sessions. Training needs access to Cal-STRS personnel to document these workarounds.</p>

Risk	Impact	Prob Occur	Description of Risk	Mitigation Strategies/ Recommended Activities	Status of Mitigation Activities
START functionality does not meet CALSTRS needs	High	Lov	Any new IT system runs the risk of not meeting user needs.	<p>Ensure users should be involved in requirements effort.</p> <p>Specifications must detail planned functionality and be reviewed by the user team.</p> <p>Acceptance test criteria must be specified.</p> <p><u>Test Assessment process ensures compliance with specifications.</u></p>	<p>CALSTRS has invested significant resources to ensure that users of the system understand what is being developed and to ensure that it meets operational needs.</p> <p>Completion of specifications and approval of the design minimizes this risk.</p> <p>User acceptance criteria has been defined and the operational units will be responsible for accepting the system, based on a defined process.</p> <p><u>A Test Assessment Report details issues discovered during testing for review by the business units. Most recent findings indicate compliance in majority of areas.</u></p>
CALSTRS has inadequate staff resources to implement test strategy.	Med	Med	Testing will be a major component of the system implementation effort. This effort will require significant CALSTRS resources. There are significant ramifications in terms of SPL payment and system deployment if there are inadequate resources to test the system in a timely manner.	<p>Begin addressing staffing needs early, based on the detailed test plan.</p> <p>Involve users in the testing and acceptance of the system.</p>	<p>CALSTRS has hired an experienced testing consultant to manage and plan the testing effort. The test team is working with the organizational unit to define staffing requirements and determine support levels required. Contingency plans are being developed that address potential resource constraints. Additional test staff is being hired. Careful monitoring of test progress is critical to ensuring on-time implementation.</p> <p>A core CALSTRS test team has been formed that includes system experts and IT staff to support planning and coordination of the test effort.</p>
Data in current system not able to be converted	High	High	There may be data in the current system that is not stored in the new system.	Define conversion strategy.	The conversion strategy has been jointly developed by CALSTRS and SPL and should provide a workable approach. Both

Risk	Impact	Prob Occur	Description of Risk	Mitigation Strategies/ Recommended Activities	Status of Mitigation Activities
correctly.			Also, there may be data in the new system that is not supported in the old system. There is also a concern that validation criteria in the new system may not be met by the old data.	<p>A conversion work plan must be completed to determine feasibility of the conversion being completed within the necessary schedule.</p> <p>Audit procedures are needed to verify processes for conversion and to validate data conversion.</p>	<p>gradual and “big bang” approaches were considered. The strategy is currently being exercised as the pre-trial runs are being performed with a high degree of success. Conversion programs are being run to identify problems. A trial run is planned in February.</p> <p>A work plan has been revised, and is being used to track progress of the effort.</p> <p>An EDP Auditor has been hired and is in the process of developing a strategy for auditing the conversion processes and defining reconciliation processes. This issue has not been addressed directly. The item will be considered during reconciliation.</p>
Ability to convert and go live can not be completed in available timeframe.	High	Med	There is a significant effort required to convert existing data and to verify that conversion is accurate. There is a limited window in which to perform this task to ensure clients receive benefits checks on time.	Develop detailed plan for crossover in conversion plan.	This area is being addressed in the Trial Runs. Strategy should be piloted and proof of concept performed/ trialed prior to actual cut-over. The conversion strategy is working carefully on the time it takes to actually convert data and trying to make it as efficient as possible.
CALSTRS staff can not maintain the system following delivery	Med	Low	Technology transfer is an integral part of the project. CALSTRS staff must be able to understand how to operate and maintain the system following	Provide contractual means for providing technical support following completion of system development. Provide technical documentation with the system.	A T&M item is included in the contract to allow for technical support by SPL following system acceptance. A statement of work for a separate vehicle is being developed for a maintenance contract that will address post-implementation



Risk	Impact	Prob Occur	Description of Risk	Mitigation Strategies/ Recommended Activities	Status of Mitigation Activities
			acceptance and delivery.	Develop Maintenance Strategy/Plan	<p>maintenance activities that are beyond warranty issues. Scope of services and contract vehicle are being defined.</p> <p>To contain costs and schedule, the current effort requires SPL to generate only external specification documentation. Internal specifications are provided at a lesser level, with SPL providing notes, but not providing formal deliverables. Technology transfer opportunities are provided to offset some of the limitations on documentation. The CALSTRS IS team has provided standardization guidelines to SPL and SPL has agreed to meet them. Technical interchange meetings could be conducted that would assist the START conversion and test team in better understanding some technical issues without increasing the need for documentation.</p> <p>ITSD has formed a team and has selected a consultant services to support development of a maintenance strategy plan for START. A draft release has been completed and the Team is continuing to update the strategy and develop a plan. <u><a href="#">Near-term effort needs to concentrate on process definition for correction of fixes and production releases.</a></u></p>
Users can't operate the System	High	Low	START system will be new and require adequate training of staff prior to "go live", but sufficiently close to cutover that users	Include training with delivery of the system just prior to "go live".	<p>Training is provided for in the current contract and is being considered in the overall implementation plan.</p> <p>Users organizations will have opportunities</p>

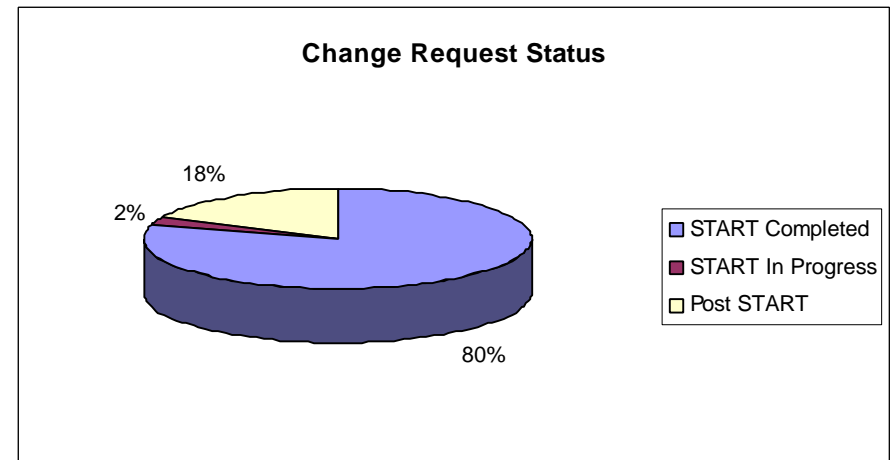
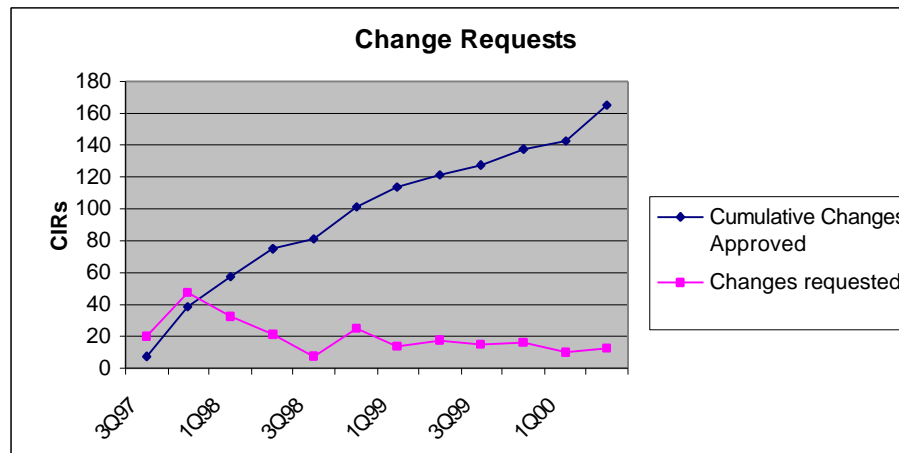
Risk	Impact	Prob Occur	Description of Risk	Mitigation Strategies/ Recommended Activities	Status of Mitigation Activities
			remember how to operate the system.	Involve users in early use of the system.	to see how the system operates in the testing efforts. Many users will have direct experience with the system through these activities.

## START PROJECT METRICS

Using metrics, project progress is measured through the completion of activities on the project schedule. Progress indicators are used to monitor progress in terms of task completion and task output. The difference between the planned and actual completions is an indication of project adherence to the plan. This type of progress monitoring is currently being conducted. In addition to the planned versus actual indicators, START project monitors trends in the rate of progress.

### Trends in the number of change initiation requests

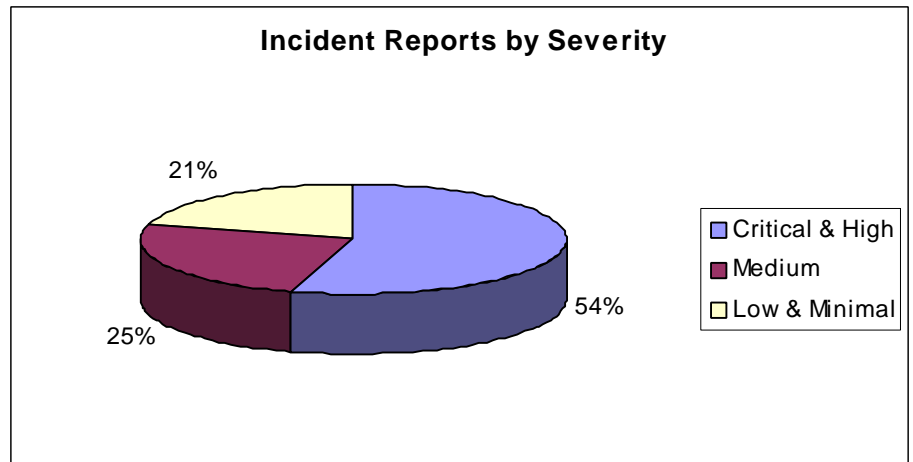
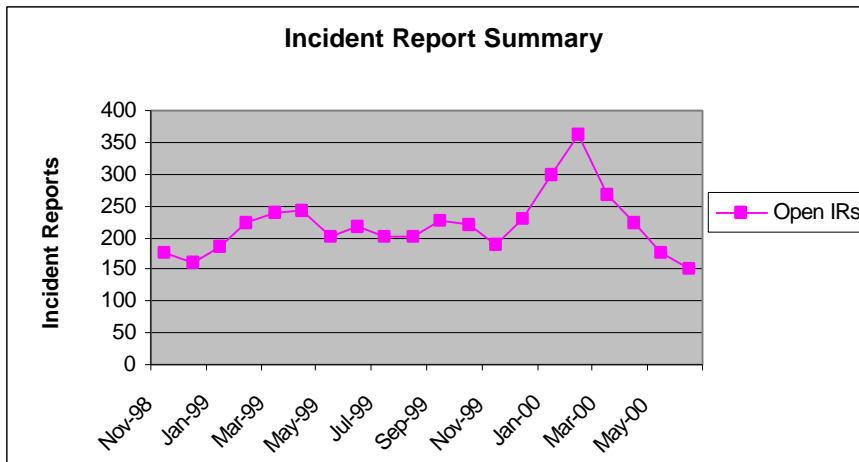
This chart shows the current total number of Change Initiation Requests (CIRs) over time and the number of changes requested each quarter. CIRs represent requirement changes and typically have an impact on both cost and schedule. Ideally CIRs are resolved in the early stages of a project and there should not be significant growth in the number of CIRs in the later stages of a software development effort. The Change Request Status reveals that many of the change requests have been completed or postponed. Only a small portion will need to be completed before the end of START. The current SPL schedule indicates that CIRs required for the initial system will be completed in.



## Trends in the number of Incident Reports

An incident report is a document used to recognize record, track, and close anomalies detected in the software and its accompanying documentation. Incident reports provide an indication of the quality of the product not only by their number, but also by the rate at which they are written. The number of incident reports also reflects the amount of rework that may be expected. This metric provides managers with insight into the quality of the product, the software reliability, and the effectiveness of testing.

The graph shows the overall trend in the number of open incident reports. Ideally, as testing progresses, it takes the test team longer and longer to discover new problems because early testing discovers more common defects. However, as system testing has continued the number of incident reports in the Critical & High and Medium severity categories have continued to grow to 81% of incidents, and the total number has continued to grow. However, the rate at which the incidents have been closed out has contributed to the decrease in the number of open incident reports. The increasing proportion of incidents in the Critical & High and Medium categories indicate that extra time and effort may be needed to correct these errors.

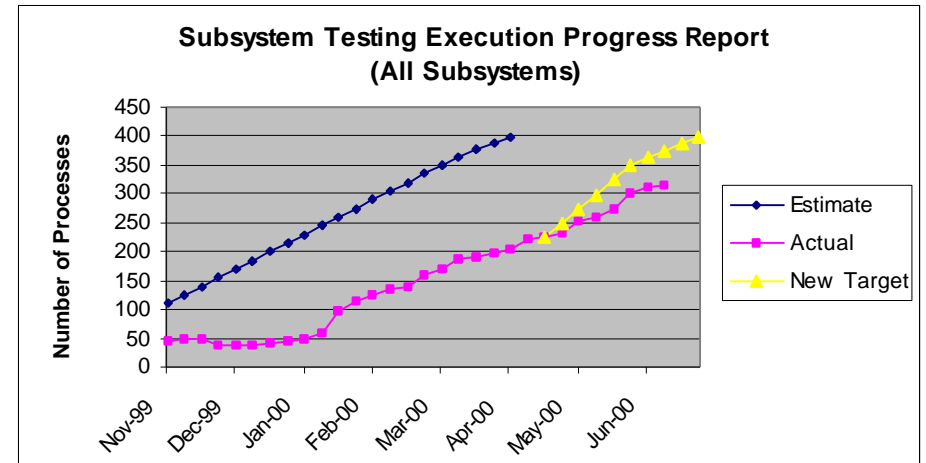
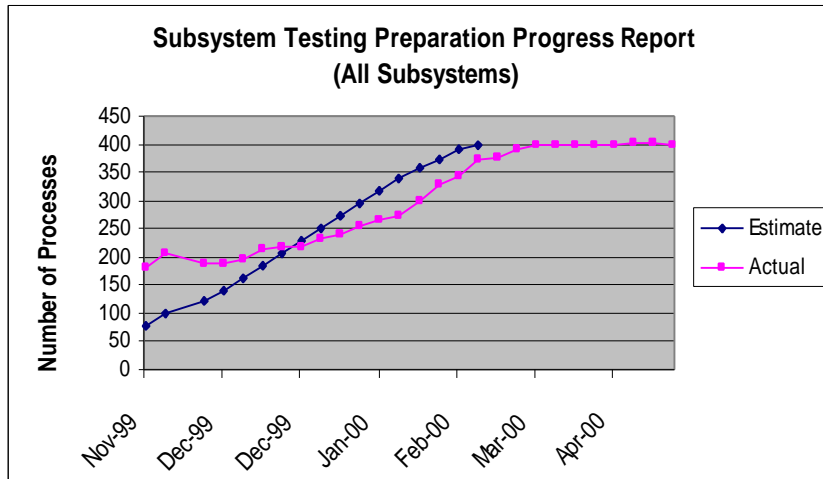


## Trends in Testing: Test Script Preparation and Execution

The Test Script Preparation Metrics tracks the ability of the test writers to meet the proposed schedule. If the test writing is behind schedule, the actual testing of the system may fall behind. The Test Script Execution metric reveals the progress of the test team in executing tests to completion.

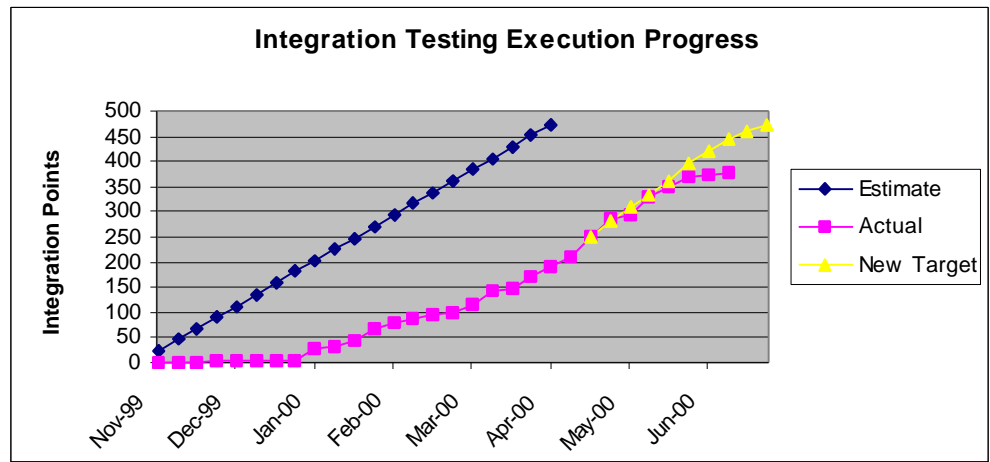
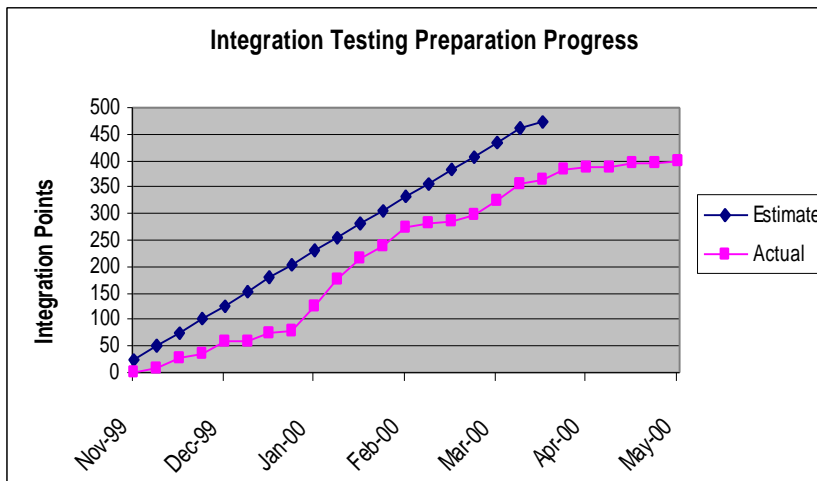
### Subsystem Testing

The results at this time show the test team having completed generation of all but one subsystem test script. ~~, but continuing to remain significantly behind on subsystem test script execution.~~ A new target has been established for subsystem test execution, and the test team is now on targetslightly behind schedule.



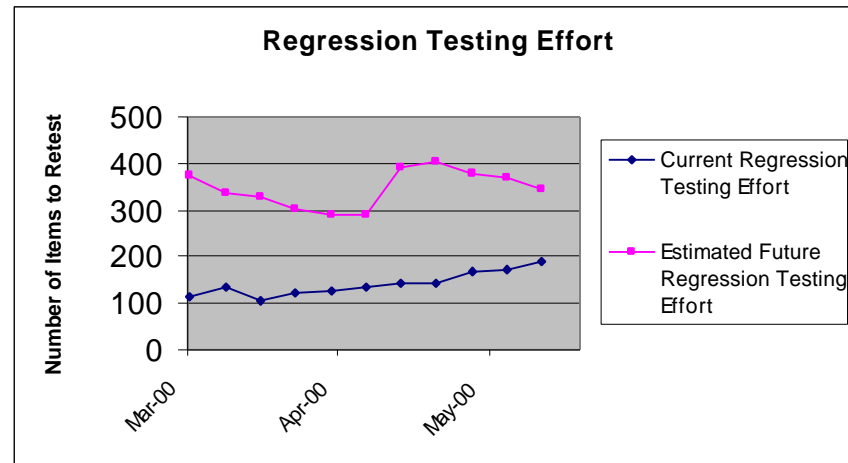
## Integration Testing

The results at this time show the test team falling behind on integration test script generation, ~~and execution~~. A new target has been established for integration test execution, ~~and the test team is now on target~~. The team is slightly behind schedule, but plan to meet the milestone for completion of the first pass of testing by the end of the month.



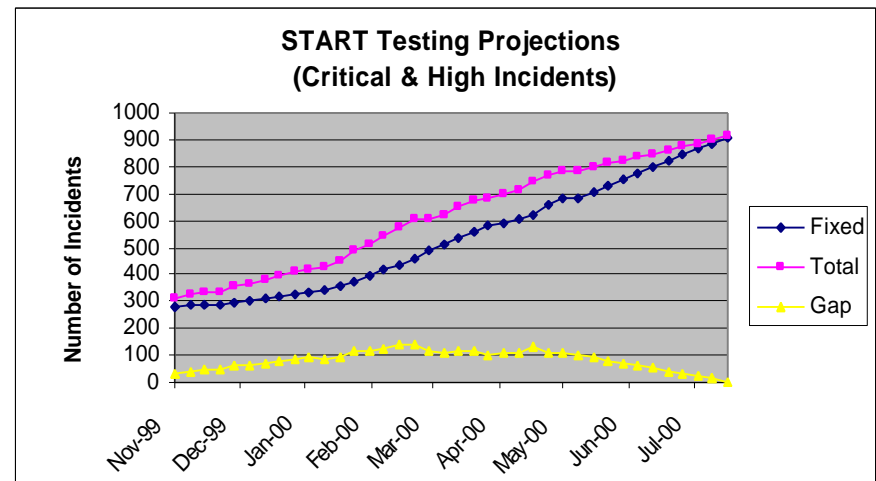
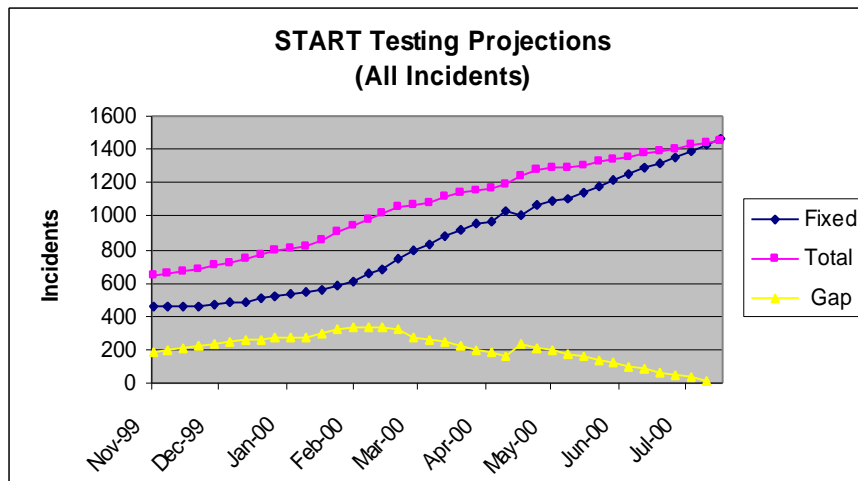
## *Regression Testing*

Regression testing is used to verify the correctness of software changes and search for side effects as a result of software changes. The changes tested are a result of both incident corrections and change request implementations. Regression testing completes a subset of previously executed tests, which is in proportion to the scope and impact of the change. Currently, all fixes that have been provided by SPL are in regression testing, and the estimated future regression testing is based on the number of incident corrections or changes that SPL still must deliver.



### Trends in Testing: Projected Test Results

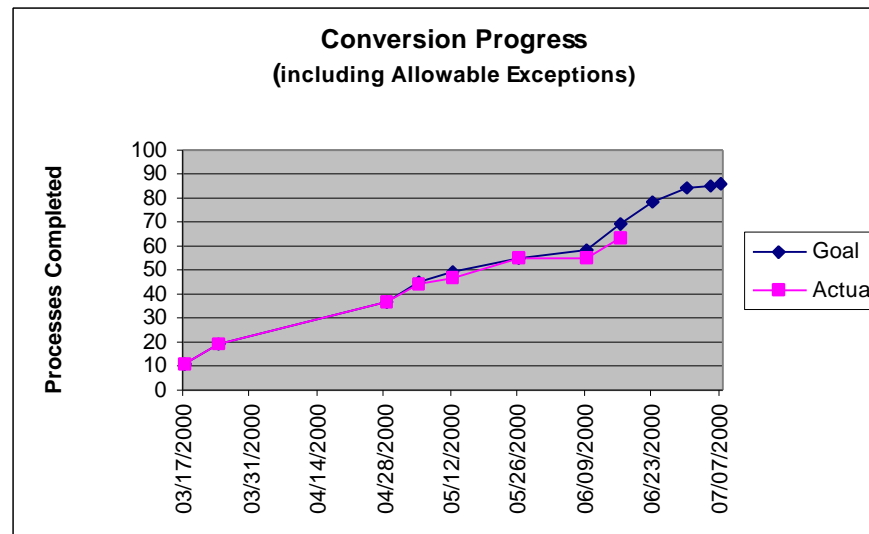
The Project Test Results summary indicates the expected future progress of the testing team in executing test scripts for deliverables. A projection of incidents and their fixes is determined based on the historical discovery rate and fix rate in the START project. Comparing the projected gap between incident discovery and fixes shows that the gap is decreasing; thus, the team is projected to continue fixing incidents faster than discovering incidents, which is expected as testing continues.





## Conversion Program Development Status

This metric is intended to provide insight into the status of the effort to ~~develop conversion programs. For most data elements, a program must be written to extract data from the IDMS database and transfer the data elements to the proper elements of the new START database. This metric does not address actual data conversion.~~ convert data. This metric shows the number of processes completed in relation to the planned goal. A metric will be added at a later time for that status, as the actual conversion becomes a more critical factor in the project. In the development of the conversion programs, the conversion team requires system expert time to help identify the method that will be used to resolve data issues. The plan for the conversion effort was updated in February to reflect the rework progress, and with the new schedule, the progress is falling slightly behind plan. However, the The conversion team has begun to work towards milestones rather than measuring progress based on a percentage complete. The next major milestone is to complete the pre-trial run (scheduled for 7/28). The next trial run is planned to be started on 7/15. ~~the progress is on track. Additional staff were added to put the effort back on plan. Both the original and rework plan are provided for reference.~~





## **START PROJECT STATUS**

**May 31, 2000**

### **OVERVIEW**

One Lead Analyst remains focused on assisting the CalSTRS Conversion Team in establishing the initial START database. The remainder of the team is focused on the analysis and repair of Incidents reported by the CalSTRS Testing Team, as well as the delivery of the remaining Change Orders requested by CalSTRS.

### **PLANNED VS. ACTUAL**

#### **WORK COMPLETED THIS MONTH**

Two hundred Incidents were resolved during May, and twenty-four Conversion Override Requests have been investigated, discussed, and implemented. In addition, Two Change Orders were delivered.

#### **WORK NOW IN PROGRESS**

Wherever the requisite START data is not available on existing cases, Conversion alternatives are being evaluated with a view towards meeting the planned implementation date. This often requires some adjustments to the current START software in order to differentiate between converted cases and those initiated under START rules.

We continue to maintain our progress in addressing the Incidents raised by the Testing Team. We are fixing them faster than they are being reported, so the number remaining open is still diminishing. We expect this trend to continue over the next few months.

#### **WORK SCHEDULED TO BE COMPLETED NEXT MONTH**

Three Change Orders are to be delivered in June, along with several of the remaining Letters and the first Planning and Actuarial Extract.

### **MILESTONES (Project Deliverables)**

#### **OVERALL PROJECT SCHEDULE**

Three other Change Orders are also scheduled for May completion. The only remaining deliverable from the original contract is "Planning and Actuarial", which has been postponed until the Conversion, Testing and Change Orders have been addressed.

#### **THOSE COMPLETED THIS MONTH**

Changes to accommodate Minimum Guarantee legislation, along with modifications to Benefits for Conversion purposes, were delivered as planned during May. Changes requested in some basic START calculations were also delivered.

THOSE PLANNED FOR THIS MONTH BUT NOT MET, WITH NEW DATES  
None.

**PLANNED FOR NEXT MONTH**

Planning and Actuarial 's Account Extract, some remaining Letters and three Change Orders are planned for June delivery.

**CHANGE ORDERS**

**CHANGE ORDERS INITIATED THIS MONTH**

Three new Change Orders were initiated during May.

**CHANGE ORDERS APPROVED THIS MONTH AND ASSOCIATED DOLLARS**

Three Change Orders were approved this month with a dollar value of \$83,000.

**TOTAL VALUE OF CHANGE ORDERS INITIATED FOR THE PROJECT**

\$4,212,641.

**ISSUES**

None to report.